



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

20NR-72
Job Sheet 190622



Part No: 20NR-72

Job Qty: 4 pcs

Part Name: Light Release Pivot Bushing



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/12/19

Job Tracking No:

Due Date: 3/15/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG 20NR-72 Rev. 1A IPP Rev. A 18.06.15 new issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Conventional Lathe - 1	4 pcs	3/15/19		0.00	0.40	Conventional Lathe - 1		Fred 19-4-3
							Conventional Lathe - 2		
120	QC 2	4 pcs	3/15/19		0.00	0.00	QC 2 - 1		19/4/13
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 54		
							QC 2 - 56		
							QC 2 - 57		
							QC 2 - 62		
							QC 2 - 63		
							QC 2 - 8		



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CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S169194



Part: 20NR-72

Job No: 190622

Serial No/Batch: S169194

Revision: 1A

Inspector:

Exp Date:

Instructions:

Date: 04/03/19

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130 QC 8	4 pcs	3/15/19	0.00 0.00	QC 2 - 66	
				QC 2 - 64	
				QC 8 - 12	mL 19/04/05
				QC 8 - 14	
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	
				QC 8 - 9	
				QC 8 - 68	
				QC 8 - 67	
				QC 8 - 1 (A)	
				QC 8 - 47	
150 Outsource - 15 - Nickel Plate	4 pcs	3/15/19	0.00 0.00		03/05/2019 PL
160 Packaging 2-1 - Receive - B4B	4 pcs	3/15/19	0.00 0.00	Packaging 2 - 1 - B4B	
bP				Packaging 2 - 2 - B4B	
				Packaging 2 - 3 - B4B	
				Packaging 2 - 5 - B4B	
				Packaging 2 - 4 - B4B	
				Packaging 2 - 6 - B4B	
				Packaging 2 - 7 - B4B	
				Packaging 2 - 8 - B4B	
				Packaging 2 - 9 - B4B	
				Packaging 2 - 10 - B4B	
				Packaging 2 - 11 - B4B	
				Packaging 2 - 12 - B4B	
				Packaging 2 - 13 - B4B	bP APR 10 2019
				Packaging 2 - 14 - B4B	
				Packaging 2 - 15 - B4B	
				Packaging 2 - 16 - B4B	
				Packaging 2 - 17 - B4B	
				Packaging 2 - 18 - B4B	
				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	

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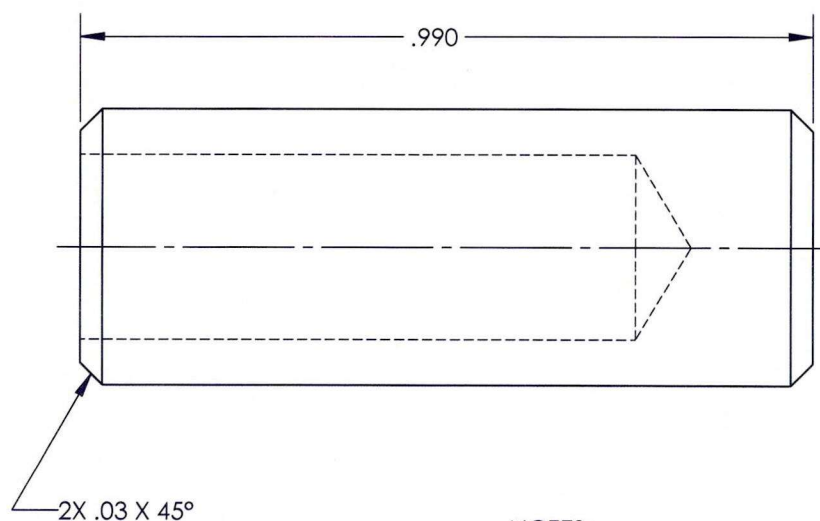
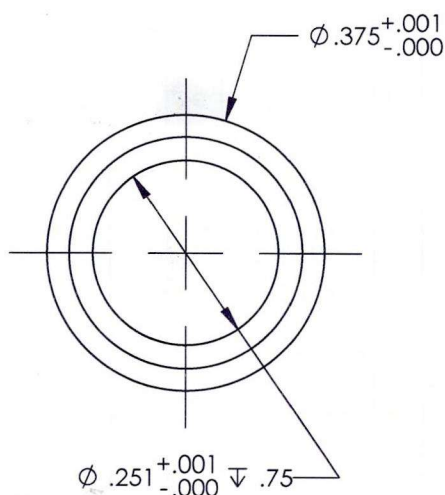
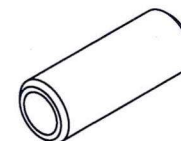
				Packaging 2 - 36 - B4B		
170 QC 6	4 pcs	3/15/19	0.00 0.00	QC 6 - 42		
				QC 6 - 9		
				QC 6 - 68	APR 10 2019	DAS 68
				QC 6 - 61		9-89
180 Packaging 3-1 - Stock - B4B	4 pcs	3/15/19	0.00 0.00	Packaging 3 - 1 - B4B		
				Packaging 3 - 2 - B4B		
				Packaging 3 - 3 - B4B		
				Packaging 3 - 4 - B4B		
				Packaging 3 - 5 - B4B	DAS 28	
				Packaging 3 - 6 - B4B	9-89	
				Packaging 3 - 7 - B4B		
				Packaging 3 - 8 - B4B		
				Packaging 3 - 9 - B4B		
				Packaging 3 - 10 - B4B		
				Packaging 3 - 11 - B4B		
				Packaging 3 - 12 - B4B		
				Packaging 3 - 13 - B4B		
				Packaging 3 - 14 - B4B		
				Packaging 3 - 15 - B4B		
				Packaging 3 - 16 - B4B		
				Packaging 3 - 17 - B4B		
				Packaging 3 - 18 - B4B		
				Packaging 3 - 19 - B4B		
				Packaging 3 - 20 - B4B		
				Packaging 3 - 21 - B4B		
				Packaging 3 - 22 - B4B		
				Packaging 3 - 23 - B4B		
				Packaging 3 - 24 - B4B		
				Packaging 3 - 25 - B4B		
				Packaging 3 - 26 - B4B		
				Packaging 3 - 27 - B4B		
				Packaging 3 - 28 - B4B		
				Packaging 3 - 29 - B4B		
				Packaging 3 - 30 - B4B		
				Packaging 3 - 31 - B4B		
				Packaging 3 - 32 - B4B		
				Packaging 3 - 33 - B4B		
				Packaging 3 - 34 - B4B		
				Packaging 3 - 35 - B4B		
				Packaging 3 - 36 - B4B		
190 QC 21 - SA	4 pcs	3/15/19	0.00 0.00	QC 21 - SA - 21		
				QC 21 - SA - 70	APR 11 2019	DAS 70
				QC 21 - SA - 53		9-89
Part Op 110 - (Manufacture as per dwg)1-Machine as per DWG. 2-Deburr Descriptions: 120 - (QC2- Inspect parts off machine FAI/FAIB) 130 - (QC8- Inspect parts - second check) 150 - (Outside Processing - Nickel Plate)-Issue P/O to GROUPE ALTECH: P/O 043/19 -Nickel plate, QQ-N-290, Class 2, Grade E or F -Nickel Plate .0004- .0006 -Bake after plating -Material type; 4140 -Certificate of Conformity is required 160 - (Receive & Inspect for Damage & Mat'l Certs) 170 - QC6- All purchased or subcontracted products 180 - (Identify as per dwg & Stock Location: _____)Bag and label with batch number. 190 - (QC21- Final Inspection - Work Order Release)						
Job BOM						
Part / Item	Component Name	Quantity	Operation	Container		
MT-4140-R0.500	4140 Steel Round Bar 0.500"	.3960 ft (.099 ea)	110-Conventional Lathe - 1	S010044		

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
110-Conventional Lathe - 1	MT-4140-R0.500	0	21	0
Part Specifications				
Specifications could not be found.				

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		AS DRAWN BY CANAM	7/18/2013	CFS	
1A	14-0102	CH'D TITLE BLOCK WAS RED BARN IS DART. ADDED BAG & LABEL NOTE.	7/30/2014	DJN	RW



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 190622 MWS
19-02-12

NOTES:

1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.
2. BAG & LABEL WITH BATCH NUMBER.

USED ON

20NR

8NR



TITLE
LIGHT RELEASE PIVOT BUSHING

DWG NO.

20NR-72

REV
1A

MAT'L 4140

DRAWN BY:

CANAM

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

APPROVED

D Weil

.XXX ± .005

FRACTIONS ± 1/32

HEAT

.XX ± .01

ANGLES ± 5°

TREAT

SEE NOTE 1

.X ± .1

FINISH

SPEC

1. BREAK ALL SHARP EDGES .015 x 45°

OR .015R

USED ON MODEL

2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE

4:1

DATE

4/1/1997

SHEET 1 OF 1

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS
			20NR-72	1	LIGHT RELEASE PIVOT BUSHING	4140	Ø3/8 X 1-1/8

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS			
		Skid-tube ☐ Machining ☐ Large Fab ☐	Cross tube ☐ Small Fab ☐ Finishing ☐	Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐	Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐
Date :	Sequence #:	QTY Affected :			MRB (QSI042)
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor
					QC / QA Coordinator
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY			
		☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled	☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function	☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up	☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread
		Other/Details:			



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PURCHASE ORDER

PO043119



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

Attention: Grenon, Sylvie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO043119

PO Date: 4/5/19

Due Date: 4/11/19

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	190622	20NR-72	Light Release Pivot Bushing (Outside Processing - Nickel Plate)-Issue P/O to GROUPE ALTECH: P/O -Nickel plate, QQ-N-290, Class 2, Grade E or F -Nickel Plate .0004-.0006 -Bake after plating -Material type; 4140 -Certificate of Conformity is required	Firmed - X4	-	4/11/19	4 pcs	0 pcs	4 pcs	\$60.00/pcs	\$240.00

APR 10 2019 DP

Line Item Note *** NEED BACK APRIL 11,2019 ***

Grand Total: \$240.00



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PURCHASE ORDER PO043119



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

A handwritten signature in black ink, appearing to be "Patrick Lussier", written over a circular stamp or seal.

Plex 4/5/19 1:44 PM dart.Lussier.Patrick



Certificat de Conformité / Certificate of Compliance



0 1 8 2 7 8 - 1

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
Tel: 514-335-3666 Fax: 514-335-3868
www.groupaltech.com

Bon de Livraison / Packing Slip

018278- 1

Livré à / Ship to

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON, K6A1K7
CANADA
Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON, K6A1K7
CANADA
BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
09-Apr-2019		SVETLANA DORZHIYEVA		PO043119				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	20NR-72 Rev.	20NR-72 01 -E-NIC STEEL 200 [E-NICKEL STEEL 200] QQ-N-290 CLASS 2 GRADE E OR F 0.0004-0.0006 THICK BAKE AFTER PLATING	E-NICKEL STEEL CH	4	4	0	0	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
Our financial and legal responsibility will not be higher than the amount of invoice.